

Hydrogen may power the future of commercial trucking

March 14, 2021

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by Rod Borup

Picture a couple of semitrucks hauling cargo down a highway. Do you see clouds of black smoke left in their wake?

No, you don't. These trucks are powered by hydrogen fuel cells. The only waste product is water.

Hydrogen fuel cell motors are powered by hydrogen to create electricity for cars and trucks. Unlike solely electric vehicles, which can take eight hours to charge a sedan, hydrogen fuel cell motors can be refueled as quickly as a regular gasoline vehicles and drive for just as long.

The U.S. transportation industry is the nation's largest generator of greenhouse gases, accounting for nearly one-third of climate-warming emissions. So as the automotive industry seeks greener alternatives to combustions engines, hydrogen fuel cells promise a clean, efficient alternative. Hydrogen fuel cells could one day power planes, ships and trips to the grocery store.

But the transition from the combustion engine to fuel cell motors faces an infrastructure hurdle. Namely, the U.S. hasn't developed the infrastructure to make fuel cell-powered cars a reality. Across the country, there are fewer than 50 hydrogen refueling stations, which fuel cells cars need to fill their tanks, with virtually all in California.

But commercial semitrucks could be the catalyst. Transitioning these trucks to clean energy would cut about 20 percent of transportation-related greenhouse gases in the U.S. For this reason, developing a dependable, long-lasting hydrogen fuel cell for trucks is the focus of a new Department of Energy consortium called the Million Mile Fuel Cell Truck, known as M2FCT, which is co-led by Los Alamos National Laboratory and kicked off at the beginning of the new year. Funded by the Department of Energy's Hydrogen and Fuel Cell Technologies Office within the Energy Efficiency and Renewable Energy Office, M2FCT will focus on fuel cell durability, performance, and cost to better position fuel cell trucks as a viable option in the long-haul trucking market.

Read the rest of the story as it appeared in the **Santa Fe New Mexican**.

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